

Callistochiton palmulatus Carpenter. 22 fathoms. Two specimens.

Callistochiton palmulatus var. *mirabilis* Pillsbry. Low tide; not rare.

Callistochiton crassicosatus Pillsbry. Low tide; not rare.

Nuttallina californica Nuttall. Exceedingly common between tides on the rocks.

Mopalia muscosa Gould. Low tide to 12 fathoms. Very common.

Mopalia hindsii Sowerby. Low tide; not rare. No specimens showing any intergradation between this species and the preceding or the next were observed.

Mopalia lignosa Gould. Between tides; common.

Mopalia ciliata Sowerby. 12 fathoms; four specimens. All the specimens taken were predominantly red in color, but sometimes mottled with white, brown and green. A very striking and handsome species.

Mopalia ciliata var. *wosnesenskii* Middendorf. 12 fathoms; one specimen.

Placiphorella velata Carpenter. A number of specimens of this interesting species were found at low tide.

Katherina tunicata Sowerby. Several specimens were obtained far out on the rocks among the mussels.

Cryptochiton stelleri Middendorf. A few specimens found at low tide.

In conclusion it may be well to call attention to several interesting features of Monterey's mollusk fauna which are presented by the foregoing list: the extraordinary development of the chitons (some twenty-six species and four varieties); the large representation of *Ocenebra* (ten species and varieties), of *Scala* (eight species), and of the *Pyramidellidae* (fourteen species); and the prominence of *Acmaeidae* in the shore fauna, both as regards number of species and varieties (fifteen) and of individuals.

TWO NEW SPECIES OF LYMNÆA.

BY FRANK COLLINS BAKER.

LYMNÆA JACKSONENSIS n. sp.

Limnea catascopium BINNEY (part), Land and Fresh-water Shells of North America, II, 1865, p. 56, fig. 86, two central figures.

Shell ovately fusiform, solid; color very dark horn; surface shining, lines of growth coarse, crossed by deeply incised spiral lines sagrinating the surface; one or two rest periods are discernible as longitudinal bands on the body whorl or spire; apex smooth, very dark chestnut color; whorls $5\frac{1}{2}$, rounded, rather rapidly increasing in size; body whorl large, ovately-inflated; sutures well impressed; spire about equal to the aperture in length, broadly conical; aperture regularly elongate-ovate, narrowed at both ends, somewhat effuse anteriorly; outer lip with a chestnut-bordered internal lip; inner lip in the adult rather broadly reflected over the umbilicus, leaving a small, narrow chink; juvenile specimens are almost imperforate; parietal callus rather heavy in some specimens, in which case making a continuous peritreme; axis very slightly twisted; columella with a well-marked fold, more strikingly developed in young than in old specimens.

Length 19.0, width 10.0, aperture length 10.1, width 5.0, mm.

Length 16.5, width 9.5, aperture length 9.1, width 4.8, mm.

Length 14.5, width 8.5, aperture length 8.5, width 4.0, mm.

Length 14.0, width 7.5, aperture length 7.5, width 3.4, mm.

Length 12.5, width 7.5, aperture length 8.0, width 3.5, mm.

Types: Chicago Academy of Sciences, 6 specimens.

Cotypes: Collections of Acad. Nat. Sci., Phila., and of A. A. Hinkley.

Type locality: Jackson Lake, drained by the south fork of the Snake River, Wyoming.

Records: Oregon: Grindstone Creek (Hayden, Smithsonian collection). Wyoming: Jackson Lake; Philips Lake, eight miles north of Jackson Lake (H. O. Hinkley, A. A. Hinkley).

Remarks: This species was received from Mr. A. A. Hinkley, of Du Bois, Illinois, under the name of *L. binneyi*. Comparison with Tryon's types at once showed that it was not that species, which is larger, of a different color and with a differently-shaped shell, inner lip, umbilicus, etc. It approaches *L. gabbi* Tryon, but the aperture is more regularly elongate-ovate, the whorls are rounder, the inner lip is broader, there is an umbilical chink and the whole shell is more fusiform. Comparison has been made with Tryon's types and with a set in the Chicago Academy of Sciences received from Tryon from the original lot. The species resembles very closely in color and in the form of the columella certain forms of *apicina* (= *solida* preoccupied) but the spire of *jacksonensis* is longer and the aperture, narrower.

It has some resemblance to *L. catascopium* but the columella is quite different and the aperture is differently shaped. Binney's two central figures in Land and F.-W. Shells, fig. 86 accurately picture the species and the original specimens in the Smithsonian (No. 8304) seem to be the same. It has probably been named *binneyi* or *solida* in collections but it seems to be a distinct species, related to the *binneyi-solida-catascopium* group of Lymnæas. Mr. H. O. Hinkley collected the specimens.

LYMNÆA PSEUDOPINGUIS n. sp.

Shell globose or globosely ovate, thin and fragile; color very light corneous inclining to yellowish, sometimes brownish; surface dull to shining, but not polished, growth lines very heavy and spiral lines deeply incised; whorls 4 +, rounded; the body-whorl globosely inflated, the whorls increase very rapidly in size, the last whorl occupying from $\frac{3}{4}$ to $\frac{5}{6}$ of the length of the shell; spire usually short, depressed, dome-like, sometimes more elongated; sutures well-marked, bordered below by a wide, yellowish band; aperture ovate or roundly-ovate, sometimes a trifle expanded and somewhat effuse anteriorly; inner lip rather broadly expanded, triangular, reflected over but not closing the umbilicus, which is a conspicuous chink; there is no columellar plait in the majority of specimens; the parietal callus is very thin or wholly lacking. The axis is but slightly twisted.

Length 9.0, width 6.5, aperture length 6.0, width 3.5, mm.

Length 9.0, width 6.0, aperture length 6.0, width 3.5, mm.

Length 9.5, width 6.75, aperture length 6.5, width 3.5, mm.

Length 8.2, width 5.5, aperture length 5.4, width 3.0, mm.

Length 8.0, width 5.5, aperture length 5.0, width 3.0, mm.

Length 14.0, width 8.0, aperture length 8.0, width 4.3, mm.

Length 12.5, width 7.5, aperture length 7.3, width 4.0, mm.

Length 11.0, width 7.0, aperture length 7.0, width 3.5, mm.

Length 7.2, width 5.0, aperture length 5.0, width 3.0, mm. Mt.

Sinai.

Length 7.5, width 5.0, aperture length 5.0, width 2.5, mm. Mt.

Sinai.

Types: Chicago Academy of Sciences; *Cotypes*, collection Miss Mary Walker, Buffalo, N. Y., Mr. Bryant Walker, Detroit, Mich., Academy Natural Sciences, Philadelphia and the Smithsonian Institution, Washington.

